#### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-003706 Address: 333 Burma Road **Date Inspected:** 23-Aug-2008

City: Oakland, CA 94607

**OSM Arrival Time:** 1330 **Project Name:** SAS Superstructure **OSM Departure Time:** 2230 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component: OBG** Fabrication

### **Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

QC Inspectors: Mr. Sun Bo

Orthotropic Box Girder (OBG):

Heavy Tower Bay 3:

Around 1500 hours ZPMC QC representative Mr. Testino informed the QA Inspector that ZPMC QC and ABF QA Inspection personnel will be conducting final visual weld inspections of deck panels DP069-001 and DP006-002 in heavy tower bay #3. Following QC Inspector Mr. Sun Bo and ABF Inspector Mr. Wang Zhong Yuan accepting the welds the QA Inspector performed visual inspections of the two deck panel welds. The QA Inspector observed one weld in DP609-001 had weld overlap that had not been removed. Following removal of the overlap and QC acceptance of the weld overlap removal the QA Inspector determined the two deck panel welds appear to comply with project specifications and the QA Inspector documented the visual inspections on the yellow inspection status tag that is attached to each of the deck panels.

ZPMC QC representative Mr. Testino informed the QA Inspector that Caltrans Inspectors have previously

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accepted visual inspections of the closed rib welds on deck plate DP015-001 and DP057-001 and these deck panel welds will be ready for QA final magnetic particle inspections. The QA Inspector observed ZPMC QC Magnetic Particle Inspector Mr. Wang Wei performing final magnetic particle of the on the deck panels listed above. The QA Inspector performed random magnetic particle inspections of welds on the deck panels listed above and items observed appear to comply with project specifications. The QA Inspector documented these visual inspections on the yellow "SFOBB QA Verification In Process" tags attached to each of the deck plates adjacent to where ZPMC and ABF Inspectors had documented their inspections. See the TL6028 MT test report for additional information.

QA observed four QC UT Inspectors performing depth of penetration ultrasonic inspections of deck plate DP006-002 welds.

OBG Assembly Bay 2

Segment 13-006 is tack welded together and ZPMC is grinding the tack welds.

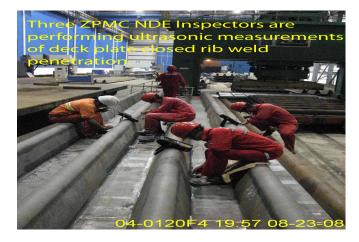
Two workers are performing SAW welding of segment 13-002.

ZPMC preparing to rotate deck panel DP073/074/075 that are welded into one single component.

# Bay 1

Deck plate DP117-002 has approximately 2/3 of the tack welds installed.

DP363-001 and DP417-001 are in gantry #2. QC does not appear to have completed MT inspections of the tack welds.



#### **Summary of Conversations:**

See above.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco 13816942685, who represents the Office of Structural Materials for your project.

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**Inspected By:** Dawson,Paul Quality Assurance Inspector **Reviewed By:** Carreon, Albert QA Reviewer